

In the Abstract:

ABSTRACT

The present invention provides methods Methods and compositions are provided for treating a subterranean formation penetrated by a well. The method comprising includes the steps of: (a) forming a treatment fluid, and (b) introducing the treatment fluid into the well and into contact with the formation. According to one aspect, the The treatment fluid comprises includes: (1) water; (2) a water-soluble polysaccharide capable of increasing the viscosity of the water and present in a sufficient concentration to increase the viscosity of the water or a water-soluble polysaccharide and a crosslinking agent for the water-soluble polysaccharide, which are present in a sufficient concentration to effect crosslinking of the of the polysaccharide and increase the viscosity of the water; (3) a breaker comprising at least one member selected from the group consisting of a source of chlorite ions and a source of hypochlorite ions, wherein the breaker is present in a sufficient concentration to break the treatment fluid after introduction of the fluid into the subterranean formation; and (4) a breaker moderator comprising at least one member selected from the group consisting of a source of magnesium ions and a source of calcium ions, wherein the breaker moderator is present in a sufficient concentration to control the break rate of the fluid.